

Amendments to the Claims

Please amend the claims as set forth below. This listing of claims replaces the claims as filed.

1. (Currently Amended) A [laminar] laminated structure used for constructing walls, floors, or ceilings or doors comprising:

two external layers of a non-metallic material,

at least one internal constraining layer, and

two or more internal layers of a viscoelastic glue separated by said at least one internal constraining layer.
2. (Currently Amended) The laminated structure [[Structure]] as in claim 1, wherein the constraining layer comprises metal.
3. (Currently Amended) The laminated structure [[Structure]] as in Claim 1, wherein said two external layers comprise each a selected thickness gypsum board layer.
4. (Currently Amended) The laminated structure [[Structure]] as in Claim 3, wherein said glue comprises a viscoelastic material capable of absorbing sound.
5. (Currently Amended) The laminated structure [[Structure]] as in Claim 4, wherein said internal metal layer comprises a sheet metal layer of selected thickness.
6. (Currently Amended) The laminated structure [[Structure]] as in Claim 5,

wherein said sheet metal layer of selected thickness comprises galvanized steel.

7. (Currently Amended) A [laminar] laminated structure comprising:
at least one internal layer of a selected material;
two internal layers of a viscoelastic glue, one such layer on each side of said internal layer; and
at least one additional layer on the other side of each internal layer of viscoelastic glue.

8. (Currently Amended) The laminated structure [[Structure]] as in claim 7 wherein said at least one additional layer comprises an external layer of a first sound absorbing material.

9. (Currently Amended) The laminated structure [[Structure]] as in claim 8 wherein said external layer of a first sound absorbing material comprises gypsum.

10. (Currently Amended) The laminated structure [[Structure]] as in claim 8 wherein said at least one external layer comprises a plurality of layers of selected materials.

11. (Currently Amended) The laminated structure [[Structure]] as in claim 10 wherein said plurality of layers of selected materials comprise:

- a first layer of metal;
- a second layer of viscoelastic glue; and

a third layer of selected material.

12. (Currently Amended) The laminated structure [[Structure]] as in claim 11 wherein said third layer of selected material comprises gypsum.

13. (Currently Amended) The laminated structure [[Structure]] as in claim 7 wherein said at least one internal layer comprises a metal layer.

14. (Currently Amended) The laminated structure as [[Structures]] in claim 7 wherein said at least one internal layer comprises [[a layer of]] a cellulose material [[such as wood]].

15. (Currently Amended) The laminated structure as [[Structures]] in claim 7 wherein said at least one internal layer comprises a layer of a solid petroleum-based synthetic material [[such as]] selected from the group consisting of a vinyl, plastic composite, or rubber.

16. (Withdrawn) The method of forming a laminar structure which comprises:
providing a layer of first material having two surfaces;
placing a layer of viscoelastic glue onto one surface of said layer of first material;
placing a layer of a second material over said viscoelastic glue;
pressing said layer of second material against said layer of viscoelastic glue and said layer of first material for a selected time; and

drying said layer of second material, said layer of first material and said viscoelastic glue.

17. (Withdrawn) The method of claim 16, including:

providing an internal layer of material or multiple layers of selected materials;

forming a layer of viscoelastic glue on each of what are to be internal surfaces of two or more laminar structures formed using the steps of claim 16;

placing two or more such laminar structures with the two or more to-be internal surfaces adjacent said internal layer or said multiple layers;

pressing the composite structure formed in the preceding step at a selected pressure for a selected time; and

drying the composite structure being pressed.

18. (Withdrawn) The method of claim 16 wherein said first material comprises a metal layer, and said second material comprises a gypsum layer.

19. (Withdrawn) The method of claim 17 wherein said internal layer comprises a cellulose-based layer such as any wood.

20. (Withdrawn) The method of claim 17 wherein said cellulose layer is wood.

21. (Withdrawn) The method of claim 17 wherein said internal layer comprises a layer selected from the group consisting of vinyl, plastic composite, and rubber.

22. (Withdrawn) The method of claim 18 wherein said internal layer comprises a metal layer selected from the group consisting of galvanized steel, stainless steel, aluminum, titanium, and a composite of two or more metals.

23. (Withdrawn) The method of claim 22 wherein said metal layer comprises galvanized steel.

24. (Currently Amended) The laminated structure [[Structure]] as in claim 1 wherein the internal constraining layer [[is]] comprises a cellulose material [[product, such as wood]].

25. (Currently Amended) The laminated structure [[Structure]] as in claim 24 wherein said cellulose [[product]] material is wood.

26. (Currently Amended) The laminated structure [[Structure]] as in claim 1 wherein said at least one internal constraining layer is selected from the group consisting of cellulose, wood, metal, plastic, vinyl, plastic composite and rubber.

27. (Withdrawn) The method of forming a laminar structure which comprises:
providing a layer of first material having two surfaces;
placing a layer of viscoelastic glue onto one surface of said layer of first material;

placing a layer of a second material, which is 1/100th to 1/2 the thickness of the first material over said viscoelastic glue;

pressing said layer of second material against said layer of viscoelastic glue and said first material for a selected time; and

drying said layer of second material, said layer of first material and said viscoelastic glue.

28. (Withdrawn) The method of claim 27 wherein said first material comprises a gypsum layer, and said second material comprises a metal layer.

29. (Withdrawn) The method of claim 27 wherein said first material comprises a gypsum layer, and said second material comprises a layer selected from the group consisting of plastic and a plastic composite layer.

30. (Withdrawn) The method of claim 27 wherein said first material comprises a gypsum layer, and said second material comprises a layer selected from the group consisting of vinyl and rubber.

31. (Withdrawn) The method of claim 27 wherein said first material comprises a gypsum layer, and said second material comprises a layer selected from the group consisting of cellulose-based material and wood.

32. (Withdrawn) The method of claim 27 wherein said first material comprises a

layer selected from the group consisting of a cellulose-based material and wood, and said second material comprises a metal.

33. (Withdrawn) The method of claim 27 wherein said first material comprises a material selected from the group consisting of a cellulose-based material and a wood layer, and said second material comprises a material selected from the group of materials consisting of a petroleum-based plastic composite and a petroleum-based rubber layer.

34. (Withdrawn) The method of claim 27 wherein said first material comprises a layer selected from the group consisting of a cellulose-based material and wood, and said second material comprises a layer selected from the group consisting of a petroleum-based plastic composite, vinyl and rubber.

35. (Withdrawn) The method of forming a laminar structure which comprises:
providing a layer of first material having two surfaces;
placing a layer of viscoelastic glue onto one surface of said layer of first material;
placing a layer of a second material over said viscoelastic glue;
pressing said layer of second material against said layer of viscoelastic glue and said first material for a selected time; and
drying said layer of second material, said layer of first material and said viscoelastic glue.

36. (Withdrawn) The method of claim 35 wherein the two exterior layers are symmetric, made of the exact same type of material, and having the exact same density and thickness.

37. (Withdrawn) The method of claim 35 wherein the two exterior layers are non-symmetric, made of other than the exact same type of material, and having other than the exact same density and thickness.

38. (Withdrawn) The method of claim 35 wherein the two or more interior layers are symmetric, made of the same type of material, and having the same density and thickness.

39. (Withdrawn) The method of claim 35 wherein the two or more interior layers are non-symmetric, made of other than the exact same type of material, and having other than the same density and thickness.

40. (Currently Amended) A [[laminar]] laminated, sound-absorbing structure which comprises:

a layer of first non-metallic material having two surfaces, one of said two surfaces comprising an outer surface;

a layer of viscoelastic glue on the other of said two surfaces ~~one surface of said layer of first material~~; and

a layer of a second material over said viscoelastic glue.

41. (Currently Amended) A ~~[[laminar]]~~ laminated, sound-absorbing structure as in claim 40 wherein said layer of second material[s] is 1/10th to ½ the thickness of the first material.